

CLAIMS

What is claimed is:

1 1. A method for identifying an encoding type associated with a central office codec in
2 a digital data communication system, said method comprising the steps of:
3 obtaining a set of transmission levels generated in accordance with an encoding scheme
4 utilized by said central office codec;
5 selecting a plurality of transmission levels from said set of transmission levels; and
6 analyzing said plurality of transmission levels to determine whether characteristics of said
7 plurality of transmission levels correspond to a specific encoding type.

2. A method according to claim 1, wherein each transmission level contained in said set of transmission levels is associated with a codeword utilized by said encoding scheme.

3. A method according to claim 1, wherein said analyzing step analyzes said plurality of transmission levels to determine whether characteristics of said plurality of transmission levels correspond to a μ -law encoding type or an A-law encoding type.

4. A method according to claim 1, wherein each transmission level contained in said set of transmission levels is an estimated transmission level corresponding to a μ -law level transmitted from said central office codec.

5. A method according to claim 1, wherein each transmission level contained in said set of transmission levels is an estimated transmission level corresponding to an A-law level transmitted from said central office codec.

1 6. A method for identifying an encoding type associated with a central office codec in
2 a digital data communication system, said central office codec being compliant with ITU-T
3 Recommendation G.711, said method comprising the steps of:

4 obtaining a plurality of transmission levels generated in accordance with an encoding scheme
5 utilized by said central office codec, each of said transmission levels being designated by a segment
6 index and a subindex associated with said segment index;

7 selecting a first level designated by a first segment index and a subindex;

8 choosing a second level designated by a second segment index and said subindex;

9 calculating a difference based on said first and second levels; and

10 identifying an encoding type of said central office codec in response to said calculating step.

7. A method according to claim 6, wherein said identifying step identifies whether said
encoding type of said central office codec is μ -law or A-law.

1 8. A method according to claim 6, wherein:
2 said selecting step selects said first level, where said first level is designated by segment
3 index N and subindex i ;

4 said choosing step chooses said second level, where said second level is designated by
5 segment index $(N + M)$ and subindex i ;

6 said calculating step comprises the step of multiplying said first level by 2^M to obtain a scaled
7 level; and

8 said calculating step calculates said difference based on said scaled level and said second
9 level.

9. A method according to claim 6, further comprising the step of comparing said
difference to a threshold, wherein said identifying step is responsive to said comparing step.

1 10. A method according to claim 9, wherein:
2 said identifying step identifies that said encoding type is of a first type when said difference
3 is less than said threshold;
4 said method further comprises the step of comparing said difference to a second threshold;
5 and
6 said identifying step identifies that said encoding type is of a first type when said difference
7 is greater than said second threshold.

 11. A method according to claim 9, wherein:
 said identifying step identifies that said encoding type is of a first type when said difference
is greater than said threshold; and
 said identifying step identifies that said encoding type is of a second type when said
difference is less than said threshold.

1 12. A method according to claim 6, wherein:
2 said method further comprises the step of repeating said selecting, choosing, and calculating
3 steps for a plurality of corresponding first and second levels;
4 each iteration of said calculating step calculates an individual difference;
5 said method further comprises the step of generating an accumulated difference associated
6 with a plurality of individual differences; and
7 said identifying step identifies said encoding type of said central office codec in response to
8 said accumulated difference.

1 13. A system for identifying an encoding type associated with a central office codec in
2 a digital data communication system, said central office codec being compliant with ITU-T
3 Recommendation G.711, said system comprising:

4 a database configured to store a set of transmission levels generated in accordance with an
5 encoding scheme utilized by said central office codec;

6 a level selector configured to obtain a plurality of transmission levels from said set of
7 transmission levels; and

8 a codec type identifier configured to identify a specific encoding type of said central office
9 codec in response to a comparison based upon said plurality of transmission levels.

14. A system according to claim 13, further comprising a level estimator for producing
said set of transmission levels in response to a corresponding set of codewords utilized by said
encoding scheme.

15. A system according to claim 13, wherein said codec type identifier is configured to
identify whether said specific encoding type is μ -law or A-law.

1 16. A system according to claim 13, wherein:
2 said level selector is configured to select a first level designated by a first segment index and
3 a subindex, and to select a second level designated by a second segment index and said subindex;
4 said system further comprises a difference generator that calculates a difference based on said
5 first and second levels; and
6 said codec type identifier identifies said specific encoding type in response to said difference.

17. A system according to claim 16, wherein:
said first level is designated by segment index N and subindex i ;
said second level is designated by segment index $(N + M)$ and subindex i ;
said difference generator is configured to multiply said first level by 2^M to obtain a scaled
level and to calculate said difference based on said scaled level and said second level.

18. A system according to claim 16, further comprising a difference accumulator configured to accumulate a number of individual differences generated by said difference generator in response to number of first and second levels.

19. A system according to claim 16, wherein said codec type identifier is further configured to perform a comparison of said difference to a threshold, and to identify said specific encoding type in response to said comparison.